



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,917	12/13/2001	John M. Bergstrom	426882001600	2229

35452 7590 09/03/2004

ACCENTURE C/O MORRISON & FOERSTER  
755 PAGE MILL ROAD  
PALO ALTO, CA 94304

EXAMINER

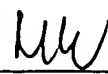
COLON, CATHERINE M /

ART UNIT PAPER NUMBER

3623

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/021,917	<b>Applicant(s)</b> BERGSTROM, JOHN M.	
	<b>Examiner</b> C. Michelle Colon	<b>Art Unit</b> 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/22/02, 10/29/02</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The following is a Non-Final Office Action in response to the communication received on December 13, 2001. Claims 1-53 are now pending in this application.

#### ***Information Disclosure Statement***

2. The examiner has reviewed the patents and publications supplied in the Information Disclosure Statements (IDS) provided on February 22, 2002 and October 29, 2002.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 11, 16-20, 24, 29 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not readily apparent what is meant by the recitation of "class" in the claims or how a class relates to the business operation.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

As per the first prong of the test, for a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences) and therefore are found to be non-statutory subject matter. For a process claim to be satisfactory, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, the steps of method claims 1-33 merely recite determining allocations in a business operation to maximize profit; however, none of the steps apply, involve, use, or advance the technological arts since all of the recited steps can be performed in person or by use of a pencil and paper and without the need of a computer or other technology.

Art Unit: 3623

As per the second prong of the test, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention determines allocations by solving a mathematical problem (i.e., concrete) to maximize profits (i.e., useful and tangible).

Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 1-33 are directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Dietrich et al. (U.S. 5,216,593).

As per claim 1, Dietrich et al. discloses a method of determining allocations in a business operation to maximize profit, comprising:

collecting profit data for a plurality of classes in the business operation, each class including an allocation having a cost function, and each allocation belonging to the group consisting of physical allocations and economic

Art Unit: 3623

allocations (col. 7, lines 46-66; The system discloses a gross profit analyzer for collecting profit data for each product order.);

determining profit functions for the allocations from the profit data (col. 7, line 50-56; The profit analyzer determines profit functions by subtracting the cost of manufacturing the order from the price charged to the customer.);

formulating a Multiple Choice Knapsack Problem to maximize profit from the profit functions, the cost functions, and a cost constraint (col. 7, line 67-col. 8, line 9; col. 8, lines 41-68; col. 10, lines 60-68; col. 11, lines 51-62; The data is supplied to a mathematical model generator.); and

solving the Multiple Choice Knapsack Problem to determine values for the allocations (col. 9, lines 6-62; col. 11, lines 51-62; col. 12, lines 53-64; The system solves the knapsack model to determine allocation values.).

As per claim 2, Dietrich et al. discloses a method according to claim 1, wherein determining the profit functions includes:

determining demand distributions for the allocations from the profit data and determining each profit function from a corresponding demand distribution (col. 7, line 21-56; col. 7, line 67-col. 8, line 2; Figure 2; The system determines demand by translating order data to other resource requirements (i.e., machines, materials) and generates mathematical models based on the data.).

As per claims 3 and 4, Dietrich et al. discloses a method according to claim 2, wherein each demand distribution includes a Poisson model or a Markov model (col. 8, line 26-col. 9, line 48; col. 10, lines 31-44; Figures 4-6; Tables 1-4;

Art Unit: 3623

The system uses Poisson and Markov modeling techniques to determine demand distributions for the resource allocation.).

As per claim 5, Dietrich et al. discloses a method according to claim 2, wherein each demand distribution includes a normal distribution model (col. 13-16; The system applies various distribution models to determine resource allocation.).

As per claim 6, Dietrich et al. discloses a method according to claim 1, wherein the allocations include spatial allotments (Tables 1-4; The tables show the spatial allotments of the data.).

As per claim 7, Dietrich et al. discloses a method according to claim 1, wherein the allocations include monetary allotments (col. 2, lines 16-18; col. 8, lines 58-61; col. 9, lines 25-62; The system discloses a benefit as minimizing cost and maximizing profit and generates models to maximize benefit.).

As per claims 8-10, Dietrich et al. discloses a method according to claim 1, wherein the cost constraint is a greater-than-or-equal-to inequality constraint, an equality constraint or a less-than-or-equal-to inequality constraint (col. 8, lines 10-24 and 41-68; The system discloses generating constraints of various values.).

Claims 11-53 recite substantially similar limitations to claims 1-10.

Therefore, claims 11-53 are rejected on the same basis as claims 1-10 have been rejected above.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Dembo (U.S. 5,148,365) discusses a method and system for optimizing allocation of resources; and
- Garg (U.S. 6,044,357) discusses a system and method for modeling based on cost and demand to optimize profit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Michelle Colon whose telephone number is 703-605-4251. The examiner can normally be reached Monday – Friday from 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached at 703-305-9643.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Any response to this action should be mailed to:

***Commissioner of Patents and Trademarks***

***Washington D.C. 20231***

or faxed to:

703-872-9306

[Official Communications; including After Final  
communications labeled "Box AF"]



Art Unit: 3623

703-746-7202

[For status inquiries, draft communication,  
labeled "Proposed" or "Draft"]

Hand delivered responses should be brought to Crystal Park 5, 2451  
Crystal Drive, Arlington, VA 7<sup>th</sup> floor receptionist.

  
cmc

August 25, 2004

  
**TARIQ R. HAFIZ**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3800